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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,961	12/31/2001	Andrew F. Glew	42390.P13736	8435

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EXAMINER	
SCHUBERT, KEVIN R	

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,961	GLEW ET AL.	
	Examiner	Art Unit	
	Kevin Schubert	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,12-18,22-24,27-29 and 32-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,12-18,22-24,27-29 and 32-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/31/01* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *(see attached)*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following Information Disclosure Statements (IDS) have been placed in the file:

10102002
11122002
11192002
11272002
04252003
04282003
06302004
08202003
08222003
04022004
04062004
07022004

DETAILED ACTION

Claims 1-9,12-18,22-24,27-29, and 32-39 have been considered. Examiner respectfully submits that at least four prior art rejections have been made on each of the independent claims. Examiner believes other prior art rejections, including art cited but not applied, are appropriate. Additional rejections have not been made for the sake of brevity.

Information Disclosure Statement

It should be noted that the applicant has submitted an exorbitant amount of prior art on numerous PTO-1449's which, on initial consideration, do not all appear to have relevancy or pertinence to the instant invention as claimed. The applicant is requested in response to this office action to point out which of these numerous prior art are pertinent or relevant to the patentability of the invention as claimed in this instant application. It should be noted that it would be advantageous to provide a concise explanation of why each of the prior art is being submitted and how it is understood to be relevant. "Concise explanations are helpful to the Office, particularly where documents are lengthy and complex and applicant is aware of a section that is highly relevant to patentability or where a large number of documents are submitted and applicant is aware that one or more are highly relevant to patentability." (See MPEP 609 under subheading "A. CONTENT").

Examiner notes that the IDS submitted 11/12/2002 has been placed in the file but has not been fully considered. It appears applicant has neglected to include the proper Foreign Patent Document citation, including the patent number of pertaining documents, on the 1449 form.

Election/Restrictions

Claims 10-11,19-21,25-26, and 30-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/3/05.

Double Patenting

Claim 14 of copending application #10/041,071 contain(s) every element of claim 1 of the instant application. As such claim 1 of the instant application is not patentably distinct from an earlier claim. Examiner further submits the double patenting issue present between claims 14-28 of copending application #10/041,071 and claims 1-34 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

Accordingly, absent a terminal disclaimer, claims 1-34 are rejected under the doctrine of obviousness-type double patenting for being anticipated by, and thus not patentably distinct from, claims of 10/041,071.

Claim Objections

Claim 37 is objected to because of the following informalities: "generated" does not appear to be appropriately conjugated. Examiner suggests "generate". Appropriate correction is required.

Specification

The disclosure is objected to because of the following informalities: Paragraph 1 of the Applicant's Specification refers to two copending applications but fails to provide the Application numbers in addition to quoting an erroneous filing date for the two. The United States Patent Application Nos. 10/041,071 and 10/039,595, respectively entitled "Authenticated Code Method and Apparatus" and "Authenticated Code Module" were filed on 12/28/01 and 12/31/01.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred medication or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art. Where applicable, the abstract should include the following:

(1) if a machine or apparatus, its organization and operation;

(2) if an article, its method of making:

(3) if a chemical compound, its identity and use;

(4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given. The abstract of the disclosure is objected to because it fails to sufficiently disclose the present invention. See MPEP 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-9 recite the limitation "protected memory". There is insufficient antecedent basis for this limitation in the claim.

Claims 1-9,12-18, and 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner finds no definitive standard for ascertaining the scope of applicant's claimed "private memory".

A review of the instant Specification reveals suggestions as to what the phrase *may* relate to (see paragraphs [0029]-[0031]). However, Examiner finds no definitive standard for interpreting applicant's "private memory" in these paragraphs or in the Specification as a whole. Appropriate correction or a specific reference in the Specification where a definitive standard is provided is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,6-9,12-14,16-18, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis, U.S. Patent No. 6,401,208.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claims 1 and 24, Davis discloses a processor comprising the following limitations:

a) private memory (Col 5, line 4 to Col 6, line 13);

b) one or more execution units to authenticate an authenticated code module stored in the private memory and to execute the authenticated code module stored in the private memory in response to executing a launch instruction (Col 5, line 4 to Col 6, line 13).

As per claim 6, the applicant describes the processor of claim 1, which is met by Davis, with the following limitation which is also met by Davis:

Further comprising a decoder to generate one or more opcodes for the launch instruction, wherein the execution units authenticate and execute the authenticated code module in response to executing the one or more opcodes (Col 5, line 4 to Col 6, line 13).

As per claims 7-8,12-14, and 28-29, the applicant describes the processor of claims 1 and 24, which are met by Davis, with the following limitation which is also met by Davis:

Further comprising a key, wherein the execution units utilize the key to authenticate the authenticated code module (Col 5, line 4 to Col 6, line 13).

As per claim 9, the applicant describes the processor of claim 1, which is met by Davis, with the following limitation which is also met by Davis:

Wherein the execution units, in response to the launch instruction retrieve a key from a chipset and use the key to authenticate the authenticated code module stored in the protected memory (Col 4, lines 21-40 and Col 5, line 4 to Col 6, line 13).

As per claims 16-18, the applicant describes the processor of claim 1, which is met by Davis, with the following limitation which is also met by Davis:

Wherein the execution units initiate execution of the authenticated code module only if the authenticated code module is determined to be authentic (Col 5, line 4 to Col 6, line 13).

As per claims 22 and 32, the applicant describes the processor of claims 1 and 24, which are met by Davis, with the following limitation which is also met by Davis:

Wherein the execution units authenticate and initiate execution of the authenticated code module stored in the private memory in response to executing microcode associated with the launch AC instruction (Col 5, line 4 to Col 6, line 13).

As per claims 23 and 33, the applicant describes the processor of claims 1 and 24, which are met by Davis, with the following limitation which is also met by Davis:

Embodied in a machine readable medium (Col 5, line 4 to Col 6, line 13).

As per claim 27, applicant describes the processor of claim 24, which is met by Davis, with the following limitation which is also met by Davis:

Wherein execution of the instruction results in the execution units loading the authenticated code module into a private memory associated with the processor (Col 5, line 4 to Col 6, line 13).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,24, and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by McGarvey, U.S. Patent No. 5,926,631.

As per claims 1,24, and 34, the applicant describes a processor comprising the following limitations which are met by McGarvey:

a) a cache memory (Col 5, lines 46-57);

b) one or more execution units to execute an instruction that results in the one or more execution units loading an authentication module into the cache memory and authenticating the authenticated code module stored in the cache memory (Col 5, lines 46-57).

As per claims 2-3, the applicant describes the processor of claim 1, which is met by McGarvey, with the following limitations which are also met by McGarvey:

Further comprising a cache memory that provides the private memory (Col 5, lines 46-57).

As per claims 4-5, the applicant describes the processor of claims 3 and 1, which are met by McGarvey, with the following limitation which is also met by McGarvey:

Wherein the execution units lock the cache memory to prevent replacement of lines of the authenticated code module stored in the cache memory (Col 9, lines 16-21).

As per claim 35, the applicant describes the processor of claim 34, which is met by McGarvey, with the following limitation which is also met by McGarvey:

Wherein the execution units initiate execution of the authenticated code module stored in the cache memory in response to determining that the authenticated code module is authentic (Col 5, lines 46-57).

As per claim 36, the applicant describes the processor of claim 34, which is met by McGarvey, with the following limitation which is also met by McGarvey:

Wherein the execution units retrieve a key and authenticate the authenticated code module based upon the key (Col 9, lines 16-21).

Claims 1,24, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Sadovsky, U.S. Patent No. 5,689,638.

As per claims 1,24, and 34, the applicant describes a processor comprising the following limitations which are met by Sadovsky:

a) a cache memory (Sadovsky: claims 10-12);

b) one or more execution units to execute an instruction that results in the one or more execution units loading an authentication module into the cache memory and authenticating the authenticated code module stored in the cache memory (Sadovsky: claims 10-12).

Claims 1,24, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Peters, U.S. Patent Application No. 6,393,420.

As per claims 1,24, and 34, the applicant describes a processor comprising the following limitations which are met by Peters:

a) a cache memory (Col 3, line 38 to Col 4, line 37);

b) one or more execution units to execute an instruction that results in the one or more execution units loading an authentication module into the cache memory and authenticating the authenticated code module stored in the cache memory (Col 3, line 38 to Col 4, line 37).

Claims 1,24, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Kedem, U.S. Patent Application No. 6,389,511.

As per claims 1,24, and 34, the applicant describes a processor comprising the following limitations which are met by Kedem:

a) a cache memory (Col 13, lines 8-40);

b) one or more execution units to execute an instruction that results in the one or more execution units loading an authentication module into the cache memory and authenticating the authenticated code module stored in the cache memory (Col 3, lines 8-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over McGarvey in view of Schneier (Schneier, Bruce. Applied Cryptography. John Wiley & Sons. 1996. Washington D.C. pages 34-41).

As per claim 37, the applicant describes the method of claim 36, which is met by McGarvey, with the following limitation which is met by McGarvey and Schneier:

Wherein the execution units obtain a digest value by decrypting a portion of the authenticated code module with the key, generated a computed digest value, and determine authenticity of the authenticated code based upon a relationship between the digest value and the computed digest value (McGarvey: Col 9, lines 16-21; Schneier: page 38).

McGarvey discloses all the limitations of claim 36. McGarvey further discloses that the execution units compare signature values. McGarvey is silent as to the signature values being compared via the particulars of the above claim. Schneier discloses that an effective comparison of signatures commonly involves these particulars. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of McGarvey because doing so allows for an effective means to ensure proper signature comparison and evaluation.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over McGarvey in view of Schneier in further view of Abgrall, U.S. Patent No. 2003/0037237.

As per claim 15, the applicant describes the processor of claim 1, which is met by McGarvey, with the following limitation:

Wherein the execution units, in response to the launch instruction, RSA-decrypt a signature of the authentication code module to obtain a digest value from the signature, perform a SHA-1 hash on the authenticated code module to generate a computed digest value, and determine that the authenticated code module is authentic in response to the digest value and the computed digest value being equal (Schneier: page 38; Abgrall: [0346]);

McGarvey discloses all the limitations of claim 1. McGarvey further discloses that the execution units compare signature values. McGarvey is silent as to the signature values being compared by the particulars of the above claim. Schneier discloses that an effective comparison of signatures commonly involves these particulars. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of McGarvey because doing so allows for an effective means to ensure proper signature comparison and evaluation.

McGarvey in view of Schneier do not disclose that the particular algorithms used in the signature verification. Abgrall discloses that RSA and SHA-1 are commonly used in signature verification. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Abgrall with those of McGarvey in view of Schneier because RSA and SHA-1 are commonly used and known to be effective algorithms for use in such a verification process.

Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGarvey.

As per claims 38-39, the applicant describes the processor of claim 36, which is met by McGarvey, with the following limitation:

Wherein the execution units retrieve the key and authenticate the authenticated code module in response to execution microcode (McGarvey: Col 9, lines 16-21);

McGarvey discloses that the execution units retrieve a key and authenticate the authenticated code module in response to executing some form of code. McGarvey is silent as to the form of code

being microcode. Examiner takes official notice that is well-known in the art to execute microcode in authentication. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to use microcode in the McGarvey system because microcode provides a convenient, efficient means authentication instruction.

Conclusion

This application is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KS

E. Moise

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER